



Science Toolkit: Grade 4 Objective 3.F.1.a

Student Handout: Science: Grade 4 Objective 3.F.1.a

Standard 3.0 Life Science

Topic F. Ecology

Indicator 1. Explain ways that individuals and groups of organisms interact with each other and their environment.

Objective a. Identify and describe the interactions of organisms present in a habitat.

Competition for space, food, and water

Beneficial interactions: nesting, pollination, seed dispersal, oysters filtering as in the Chesapeake Bay, etc.

Roles within food chains and webs: scavengers, decomposers, producers, consumers.

Selected Response (SR) Item

Question

Use the information below to answer the following question.

Students examined plants and animals that live in and near the Chesapeake Bay. The students identified some features of these organisms, as seen in the table below.

Organism	Habitat	Animal or Plant	Role
Bald eagle	Land/water	Animal	Consumer
Bay grass	Water	Plant	Producer
Deer	Land	Animal	?
Cypress tree	Land/water	Plant	Producer
Mute swan	Water	Animal	?
Oyster	Water	Animal	?
Pine tree	Land	Plant	Producer
Sandbar shark	Water	Animal	Consumer
Striped bass	Water	Animal	Consumer

Underwater plants are needed for the Chesapeake Bay habitat to be healthy. Eelgrass is one of the most common underwater plants in the bay area.

Which of these methods is the most likely way that thousands of eelgrass seeds are spread naturally throughout the bay area?

- A. The constant motion of the waves transports the seeds.
- B. Fish eat the seeds and spit them out at another location.
- C. The seeds stick to bobcat fur and fall in the water as the bobcat swims.
- D. Birds gather the seeds on their feet and drop them in the water while flying.

Correct Answer

A. The constant motion of the waves transports the seeds.

Question

Use the information below to answer the following question.

Students examined plants and animals that live in and near the Chesapeake Bay. The students identified some features of these organisms, as seen in the table below.

Organism	Habitat	Animal or Plant	Role
Bald eagle	Land/water	Animal	Consumer
Bay grass	Water	Plant	Producer
Deer	Land	Animal	?
Cypress tree	Land/water	Plant	Producer
Mute swan	Water	Animal	?
Oyster	Water	Animal	?
Pine tree	Land	Plant	Producer
Sandbar shark	Water	Animal	Consumer
Striped bass	Water	Animal	Consumer

Underwater plants are needed for the Chesapeake Bay habitat to be healthy. Eelgrass is one of the most common underwater plants in the bay area.

Which of these methods is the most likely way that thousands of eelgrass seeds are spread naturally throughout the bay area?

- A. The constant motion of the waves transports the seeds.
- B. Fish eat the seeds and spit them out at another location.
- C. The seeds stick to bobcat fur and fall in the water as the bobcat swims.
- D. Birds gather the seeds on their feet and drop them in the water while flying.